

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A radio communication apparatus comprising:

a plurality of radio signal reception ~~sections~~ boards adapted to receive radio reception signals from ~~a respective radio communication channels, wherein each radio signal reception board demodulates the received radio reception signals into first electric signals, and each radio signal reception board comprises thereon a first photoelectric conversion element that converts the first electric signals into first optical signals;~~

a plurality of reception signal processing ~~sections~~ boards ~~adapted to process the received signals, respectively; and~~

an optical transmission section adapted to optically transmit the ~~respective at least one received signal from the plurality of respective radio signal reception sections~~ first optical signals emitted by the first photoelectric conversion element of each radio signal reception board to the plurality of ~~respective reception signal processing sections~~ boards, wherein:

each reception signal processing board processes the first optical signals received from the optical transmission section;

the optical transmission section comprises one sheet-shaped optical bus ~~that can optically transmit respective at least one signal from the plurality of respective radio signal reception sections to the plurality of respective reception signal processing sections, the sheet-shaped optical bus comprising:~~

a light guide passage;

a plurality of reflection portions, each reflection portion ~~that optically reflect~~ reflecting the first respective optical signals, which are incident thereon and are input

from the ~~plurality of respective radio signal reception sections~~ first photoelectric conversion element of the corresponding radio signal reception board, ~~toward~~ towards a respective predetermined-directionsdirection; and

a diffusion reflection plate that reflects the first optical signals reflected by the reflection portions while diffusing the reflected first optical signals, ~~wherein~~ and _____ the diffusion reflection plate is disposed on one end of the light guide passage to face the reflection portions.

2-8. (Canceled)

9. (Currently Amended) A radio communication apparatus comprising:

a plurality of transmission signal processing ~~sections~~ boards adapted to process second electric signals, to be transmitted, respectively; wherein each transmission signal processing board comprises a second photoelectric conversion element that converts the processed second electric signals into second optical signals;

a plurality of radio signal transmission ~~sections~~ boards ~~adapted to transmit the processed signals to respective radio communication channels;~~ and

an optical transmission section adapted to optically transmit the ~~respective at least one processed signal from the plurality of respective transmission signal processing sections~~ second optical signals emitted by the second photoelectric conversion element of each transmission signal processing board to the plurality of ~~respective~~ radio signal transmission ~~sections~~ boards, wherein:

_____ each radio signal transmission board converts the second optical signals received from the optical transmission section into third electric signals and transmits the third electric signals to radio communication channels;

the optical transmission section comprises one sheet-shaped optical bus ~~that can optically transmit respective at least one signal from the plurality of respective~~

~~transmission signal processing sections to the plurality of respective radio signal transmission sections, the sheet-shaped optical bus comprising:~~

a light guide passage;

a plurality of reflection portions, each reflection portion that optically reflectreflecting respective the second optical signals, which are incident thereon and are input from the plurality of respective radio signal processing sectionssecond photoelectric conversion element of the corresponding transmission signal processing board,
~~towardtowards a respective-predetermined-directionsdirection;~~ and

a diffusion reflection plate that reflects the second optical signals reflected by the reflection portions while diffusing the reflected second optical signals,
~~wherein- and~~

_____ the diffusion reflection plate is disposed on one end of the light guide passage to face the reflection portions.

10-16. (Canceled)

17. (Currently Amended) A radio communication apparatus comprising:

a plurality of radio signal reception ~~sections~~ boards adapted to receive radio reception signals from ~~a respective radio-communication channels, wherein each radio signal reception board demodulates the received radio reception signals into first electric signals, and each radio signal reception board comprises thereon a first photoelectric conversion element that converts the first electric signals into first optical signals;~~

a plurality of reception signal processing ~~sections~~ boards ~~adapted to process the received signals, respectively;~~

a plurality of transmission signal processing ~~sections~~ boards adapted to process ~~a second electric signals, to be transmitted, respectively; wherein each transmission signal~~

processing board comprises a second photoelectric conversion element that converts the processed second electric signals into second optical signals;

a plurality of radio signal transmission sections~~boards~~adapted to transmit the processed signals to the respective radio communication channels; and

an optical transmission section adapted to optically transmit the~~respective at least one received signal from the plurality of respective radio signal reception sections~~first optical signals emitted by the first photoelectric conversion element of each radio signal reception board to the plurality of~~respective-reception signal processing sections~~boards and to optically transmit the~~respective at least one processed signal from the plurality of respective transmission signal processing sections~~second optical signals emitted by the second photoelectric conversion element of each transmission signal processing board to the plurality of~~respective radio signal transmission sections~~boards, wherein:

each reception signal processing board processes the first optical signals received from the optical transmission section;

each radio signal transmission board converts the second optical signals received from the optical transmission section into third electric signals and transmits the third electric signals to radio communication channels; and

the optical transmission section comprises one sheet-shaped optical bus that can optically transmit~~respective at least one signal from the plurality of respective radio signal reception sections to the plurality of respective reception signal processing sections, and can optically transmit respective at least one signal from the plurality of respective transmission signal processing sections to the plurality of respective radio signal transmission sections, the sheet-shaped optical bus comprising:~~

a light guide passage;

a plurality of reflection portions, each reflection portion ~~that~~ optically ~~reflect~~ reflecting ~~respective the first and second optical signals,~~ which are incident thereon and are input from the ~~plurality of respective radio signal reception and processing sections~~ first and second photoelectric conversion elements of the corresponding radio signal reception and transmission signal processing boards, ~~toward towards a respective predetermined~~ directions ~~direction;~~ and

a diffusion reflection plate that reflects the first and second optical signals reflected by the reflection portions while diffusing the reflected first and second optical signals, ~~wherein and~~
_____ the diffusion reflection plate is disposed on one end of the light guide passage to face the reflection portions.

18-23. (Canceled)

24. (Previously Presented) The radio communication apparatus according to claim 1, wherein the sheet-shaped optical bus comprises stepwise portions that input and/or output an optical signal.

25. (Previously Presented) The radio communication apparatus according to claim 9, wherein the sheet-shaped optical bus comprises stepwise portions that input and/or output an optical signal.

26. (Previously Presented) The radio communication apparatus according to claim 17, wherein the sheet-shaped optical bus comprises stepwise portions that input and/or output an optical signal.

27. (Canceled)